Shell’s Prelude FLNG facility is starting to take shape as construction continues in locations around the globe.

The enormous Prelude substructure is being pieced together in the Samsung Heavy Industries (SHI) Ship Yard in Geoje, South Korea where huge steel ‘blocks’ are being manufactured. Early May 2013 marked an important milestone, as the keel was laid in the dry dock. The keel is a principal structural element, running along the centre line from bow to stern like a backbone. The facility’s hull, also known as the substructure, will now be assembled in the dry dock, after which the turret and the topsides can be fitted.

Prelude’s topside modules are being prepared, some in Geoje, with others being imported from specialist fabricators around the globe. In Dubai, the Prelude turret continues to progress. The Prelude turret will be the largest non-disconnectable internal turret in the world. Once manufactured it will weigh almost 12,000 tonnes, have a diameter of approximately 30 meters and extend around 93 meters in height. This massive structure is what will allow the Prelude FLNG facility to rotate according to wind and currents when onsite over the Prelude field, ensuring the facility remains stable in all weather conditions.

Processing equipment for Prelude is being manufactured at many different locations around the world. The Prelude steam boilers, which will generate power for the facility, were recently completed in Kawasaki, Japan. The units were then shipped to the Geoje ship yard. Closer to home, Perth based contractor Pressure Dynamics safely delivered the first of three Hydraulic Power Units. The first HPU is now on route to Malaysia, where it will be installed into the subsea system. In Australia, Shell recently awarded the construction and design contract for the Prelude Darwin Onshore Supply Base to Western Australian company Decmil. Decmil has committed to Indigenous employment initiatives, and has also committed to executing the contract with 100% Australian goods and services. The Prelude development well drilling campaign will be followed by the installation of the subsea equipment on the seven wells at the Prelude field. Preparations for this critical phase of the project are underway Prelude well heads are currently being stored at the FMC Warehouse in Henderson, south of Perth. The well heads will soon be trucked to Broome, before being delivered to the rig once drilling is underway.

Prelude Asset Manager Jim Marshall said the project was progressing well, and the focus remained on safe delivery and quality. “The project is progressing to schedule, and we are really seeing activity ramping up at locations around the world,” he said. “Our key priority as a project team is to achieve a safe construction phase, which results in a safe asset, and to ensure quality in all elements. We are working really hard on both at present, and will continue to do so.”
PRELUDE RECRUITMENT CAMPAIGN GETS HUGE RESPONSE

The Prelude recruitment team received an overwhelmingly positive response to a recruitment campaign for Prelude technicians. More than 1100 applications were received over the three-week campaign in March, which was advertised across print and online media.

Prelude Production Operations Manager Stuart Symons said this was the first of a series of campaigns to run over the next year.

“We need to build a strong Australian operations and maintenance team early, to ensure we are ready for start up in a few years time,” he said.

“Our strategy is to identify great Australian talent, who can work closely with the project during construction and partial commissioning in Korea. Many of the local recruits will be posted to South Korea for a few years, while others may be sent to gain experience in other operating Shell projects around the world.

“IT IS EXCITING THAT WE RECEIVED SUCH A HIGH LEVEL OF APPLICATIONS, I THINK PEOPLE ARE REALLY INTERESTED IN WORKING ON SUCH AN INNOVATIVE PROJECT.”

“While the focus at present is on more experienced hires, we are also developing our apprenticeships and traineeships approach that will be aimed at bringing new talent into the industry,” he said.

“We are also busy working with the Global FLNG Training Consortium, which is made up of Shell, the Challenger Institute and Curtin University, to develop professional onboarding and training packages to help develop competent technicians for Prelude.”

If you are interested in working on the Prelude Project, visit the Prelude careers site at www.shell.com.au/aboutshell/careers/prelude.

New Shell Chair to Boost Offshore Engineering Research and Education

An alliance between The University of Western Australia (UWA) and Shell Australia is building local offshore engineering capability and cementing Western Australia as a centre of excellence for offshore engineering research and education.

Leading geotechnical engineer Professor David White has taken up the new position as the Shell EM Chair in Offshore Engineering. He will be supported by two Associate Professors and three sponsored PhD scholarships funded by Shell Australia.

In addition, a visiting Adjunct Professor with a strong industry background will be appointed to support the research team.

“The connection with Shell allows me to bring our research out to industry more rapidly. We now have the support we need to take our research further, for example, through collaborative activity out in the field, to validate our laboratory-based studies and our computer simulations,” Professor White said.

“It is very exciting to share Shell’s challenges. To have a global oil and gas company collaborating with UWA provides researchers with new questions to answer and new opportunities to apply what we already know. This takes us even further in establishing Perth as a global centre of excellence in offshore engineering.”

Far Stella Christened in Broome

Shell Australia Country Chair Ann Polkard is now the proud Lady Sponsor of the Far Stella, a newly built Platform Supply Vessel that will support the Prelude FLNG Project. Ann officially named the vessel at a ceremony on the wharf of the Broome Port in March in front of a crowd that included Farstad and Shell representatives, as well as members of the Broome community. A Stella is a native Australian bird, and “Far” follows the naming convention of all Farstad operated vessels.

The Far Stella is one of three Farstad operated Platform Support Vessels that Shell has contracted for the duration of the Prelude drilling campaign. The Far Stella and other vessels in the fleet are known as the most modern, state-of-the-art vessels of their kind. The three vessels will run on a rotating basis, delivering equipment and bulk goods such as fuel, food and water. During drilling, one of the vessels will be stationed near the rig at all times. All are fitted with emergency response equipment.

Ann said she was proud to be a part of the naming of a vessel that would support the Prelude FLNG Project.

“I am honoured that I was able to be a part of the naming of the Far Stella. It was a special day and I really enjoyed getting a tour of the vessel and meeting the crew,” she said.

“It was also an opportunity for Shell and Farstad to come together before we commence drilling to really reinforce our joint commitment to safety. Both parties are focused on a safe drilling campaign.”

Far Stella Captain, Casey McInniss.

New Shell Chair Explains His Role

Professor White and Shell Senior Metocean Engineer Jan Flynn recently visited Shell global locations and a number of universities to discuss research opportunities for the offshore engineering team.

“Professor White and I visited a number of Shell offices and leading universities to identify areas of research focus and collaboration,” Ms Flynn said.

“Our research will focus on sediment-structure interaction for pile foundation designs, subsea infrastructure, risers, flowlines and pipelines) and wave-structure interaction (for floating systems designs and multi-body offshore). Naturally, both these areas are directly relevant to Prelude and future FLNG projects, but also impact Shell’s wider project portfolio. There are real opportunities to bring the University’s innovations into practice more quickly and create value, not only for Shell but for the whole community.”

Coralee’s Journey to Prelude

Coralee Alexander started her working life as a roadie, then a heavy-hauler in her home state of Queensland, soon, she will be a production technician on the Prelude FLNG Project.

“I was drawn to this project because I knew this would be an opportunity where I would not only expand on my own skills and knowledge, but I would also be working with a very focused and committed team in revolutionizing the way we move forward in supplying the world with clean energy. I really feel that this role will allow me to continue building on the operating experience and knowledge I have gained from supply and distribution.”

“Prelude is a game changer for Shell in Australia and it is a truly exciting time for our organisation,” she said.

Shell was successful and was not only appointed as one of Prelude’s first production technicians, but also the first female FLNG production technician.

“I was given the job in late 2011, but I don’t start on the project until January 1st, 2014. I am very fortunate to have a good team and great boss here in the Goldfields as he is giving me support and flexibility, allowing me to do some training while still in my current role,” she said.

“Around March next year, I will be heading to South Korea for approximately two years to assist with operations readiness during construction. When I return, I will be based in Perth on a ‘fly in, fly out’ roster based offshore on the facility.”

Coralee said the skills gathered prior to joining Shell and the seven years in Shell’s downstream business would serve her well on Prelude.

“I can see how my time spent outside, working in fuel storage and handling, being around tank farms and loading and unloading the fuel tanker industry will be of benefit in my new role,” she said.

“My role will need me to support personal safety and process safety from the front line. The roles I have done in supply and distribution give me the background to be able to fulfil this requirement.”

INTERESTED IN A CAREER ON PRELUDE?


For further information, or if you have questions about the Prelude FLNG Project, visit the Prelude web site at www.shell.com.au/aboutshell/careers/prelude.html.

The NorWest Expo

Leeuwin Estate “Prelude” vineyard wine.

PRODUCERs.

In early May, the Shell team took part in the North West Expo in Broome, taking the opportunity to speak to the community about Prelude FLNG.

It is an annual event that brings together business, Government organisations and the community, with a diverse range of exhibitors on show and activities. But it wasn’t all business, the weekend included music, market stalls, food and a chance for the kids and even a celebrity chef!

At the Shell stand conversation was focused on Prelude and Floating Liquefied Natural Gas (FLNG), with many Broome community members eager to understand the project’s impact on the town.

Some of Shell’s social investment partners who work in the Kimberley region joined the Shell team on the stand, to help build awareness around the great work they do in the community. Representatives from ICEA, The David Wirrpunda Foundation and Foundation for Young Australians were all on hand to talk about their youth initiatives in Broome and other parts of the Kimberley.

The highlight of the Shell stand had to be the competition to win the Formula 1 Ferrari team signed Formula 1 shirt worn by Fernando Alonso and Felipe Massa. Broome resident Fleur Pedlar was the random draw, and came to collect her prize.

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REAL-TIME MONITORING KEEPING PEOPLE SAFE OFFSHORE

A high tech personal monitoring system could provide a new level of safety for those who work on the Prelude FLNG Project. Shell Health Australia has conducted studies on a real-time monitoring system that is worn by individual workers either for their shifts, or when carrying out work that involves identified risks. The system can monitor an individual’s exposure to hydrocarbon concentrations, benzene, toxic gases such as hydrogen sulphide, dust and radiation. Heat stress can also be monitored in real-time by using physiological markers such as skin temperature, heart rate, breath rate, activity and posture. Sensors for these markers are worn by individuals in a lightweight harness, similar to heart rate monitor straps used in sport. The data gathered by the system can then be transmitted via the internet to a laptop anywhere in the world with an internet connection. The modems on the harnesses are also GPS enabled so the location of the wearer can be electronically tracked at all times.

UPSTREAM AUSTRALIA SHELL HEALTH MANAGER JAEMIE WILSON SAID THE SYSTEM OFFERED A NEW, MORE DYNAMIC APPROACH TO MONITORING THE HEALTH OF EMPLOYEES WHEN WORKING IN CONFINED SPACES AND IN AREAS WHERE HYDROCARBONS OR OTHER INVISIBLE HAZARDS ARE PRESENT.

“The use of this technology can result in a more dynamic approach to hazard control. The data being collected can be interpreted in real time and the control barriers set to keep employees safe can be altered in line with the results of monitoring. Because not every situation or individual is the same, some may reach heat stress earlier than others. This enables us to treat each case as required, not trying to set barriers that suit everyone and every single situation,” Jaemie said.

“This can result in better protection of individuals during specific tasks, it can optimise control barriers without over protection, which itself can be a hazard. For example, if a work permit states that respiratory protection is required for a task and real-time dust monitoring is showing that this is not required, the control barrier can be reduced or removed. This can result in improved comfort levels for the operator.”

Jaemie said the monitoring equipment is well suited to offshore working environments, like that on the Prelude FLNG.

“This type of monitoring is extremely useful in environments such as offshore exploration drilling or during commissioning of new offshore facilities. Industrial Hygienists can be monitoring work happening hundreds of kilometers offshore, from a computer in the office,” he said.

“The use of real-time monitoring by remote Industrial Hygienists makes it possible to monitor unique, uncommon, or unplanned maintenance tasks that would otherwise be very difficult to capture. This technology does not replace the need for industrial hygiene resources offshore, it is complimentary, as it improves coverage of non-routine activities.

The system has undergone tests in a medical centre and a trial was also carried out during a refit of an LNG tanker in a shipyard in Singapore. Jaemie said the studies concluded that the harness was a viable alternative to traditional forms of offshore health monitoring.

“The trials provided encouraging results, this is potentially a viable way to ensure the safety of our workforce on the FLNG when it is operating. However, we have more work to do in understanding this technology and whether it is the right solution for the Prelude FLNG, so we are planning further field trials. A trial is expected to take place during Prelude construction in Dubai this year,” he said.

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WATCH THIS VIDEO
To see the monitoring system in action!
http://www.youtube.com/watch?v=uuZSaFadgQA

A trial was carried out during a refit of an LNG tanker in Singapore.

Shell Health Manager Jaemie Wilson demonstrated the monitoring system at last year’s APPEA SPE Conference.